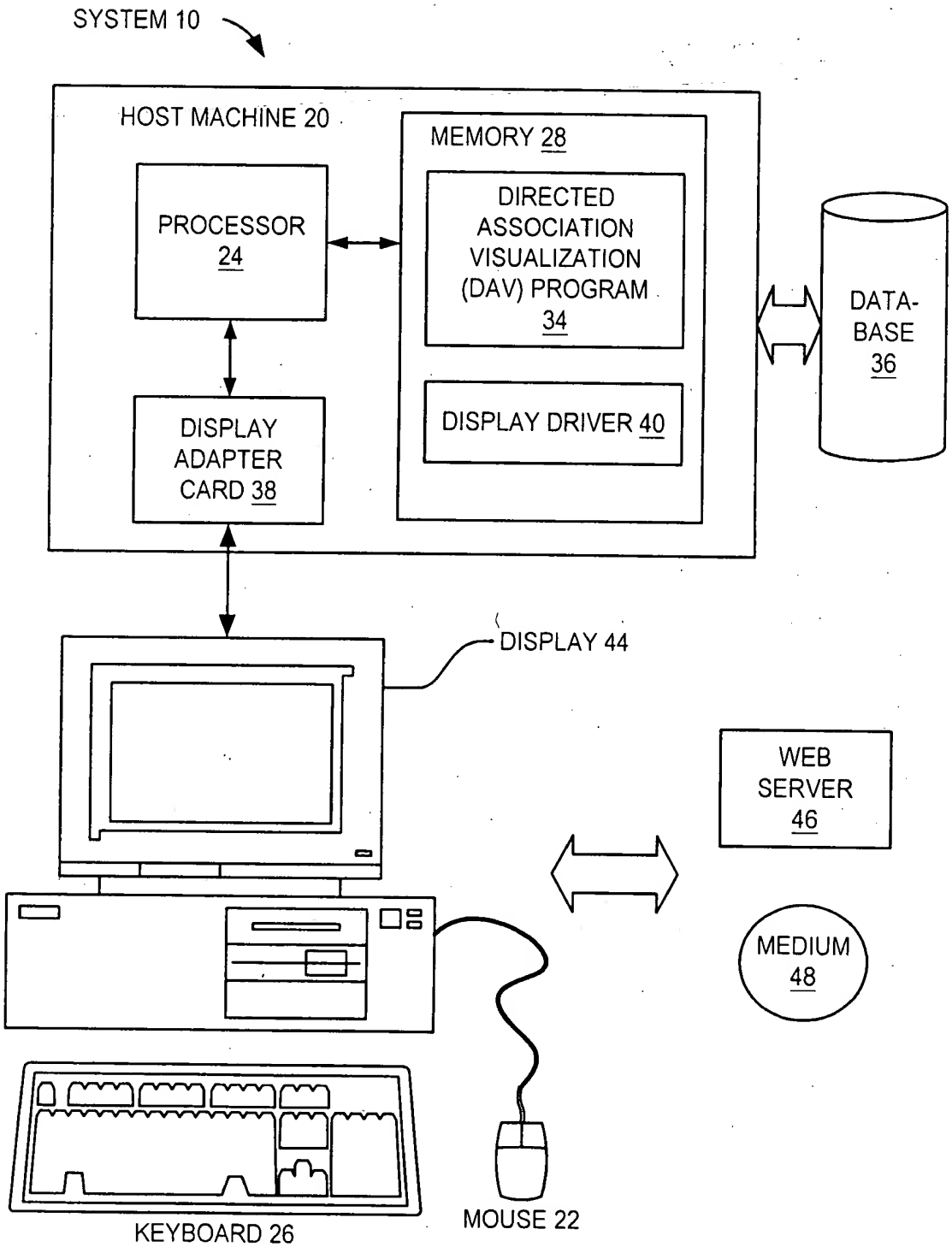
SYSTEM 10
HOST MACHINE 20
MEMORY 28
PROCESSOR 24
DIRECTED ASSOCIATION VISUALIZATION (DAV) PROGRAM 34
DISPLAY DRIVER 40
DISPLAY ADAPTER CARD 38
DATA-BASE 36
DISPLAY 44
WEB SERVER 46
MEDIUM 48
KEYBOARD 26
MOUSE 22

FIG. 1

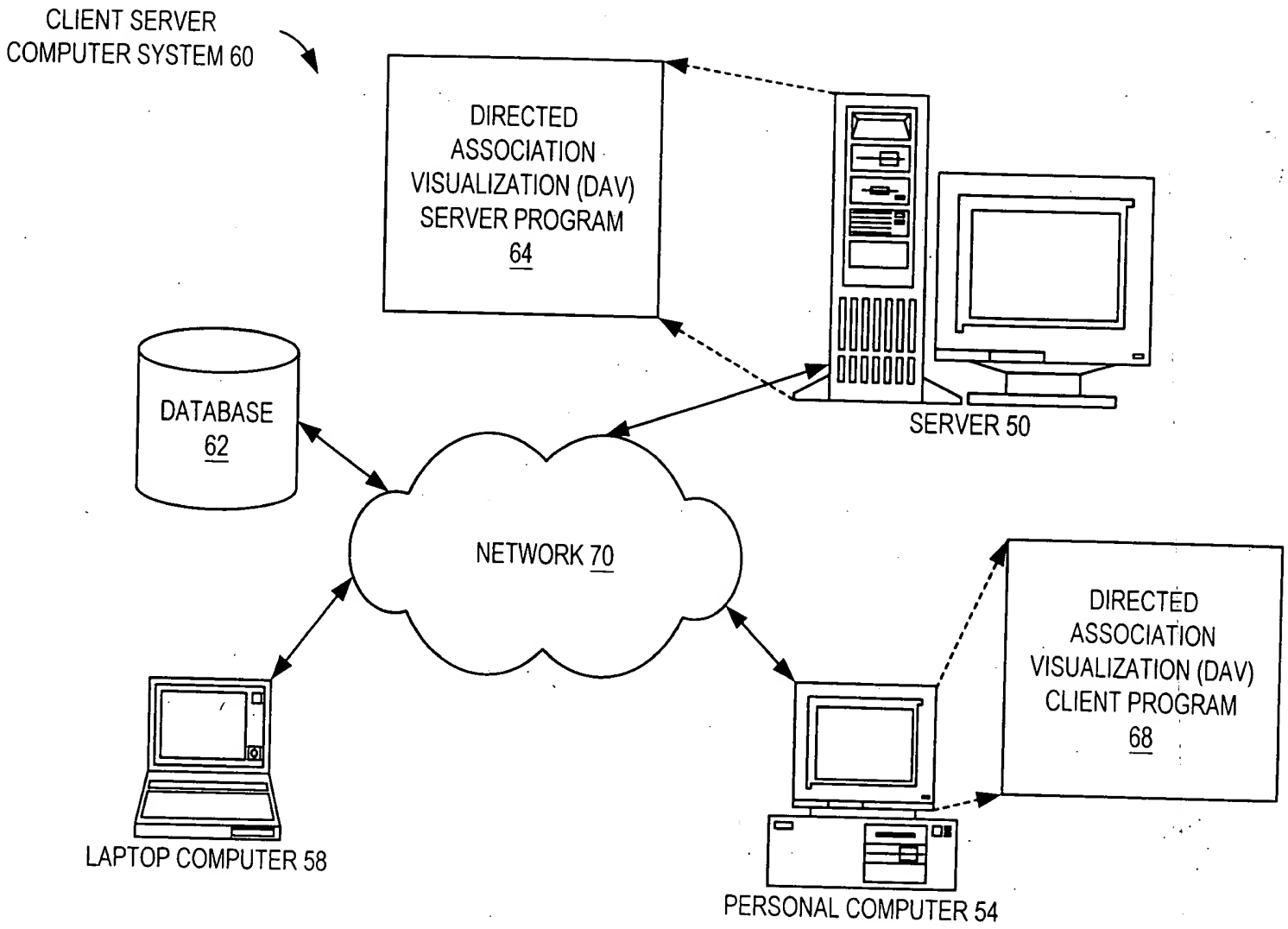
CLIENT SERVER
COMPUTER SYSTEM 60
DIRECTED
ASSOCIATION
VISUALIZATION (DAV)
SERVER PROGRAM
64
SERVER 50
DATABASE
62
NETWORK 70
DIRECTED
ASSOCIATION
VISUALIZATION (DAV)
CLIENT PROGRAM
68
LAPTOP COMPUTER 58
PERSONAL COMPUTER 54

FIG. 2

703030 "0822160"

DAV COMPONENT ARCHITECTURE

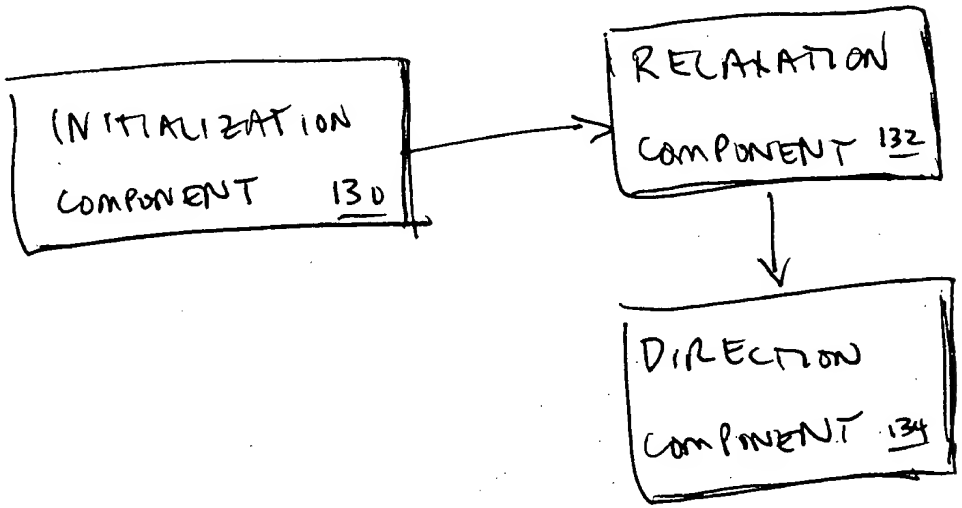

FIG. 3

Patent Application Publication

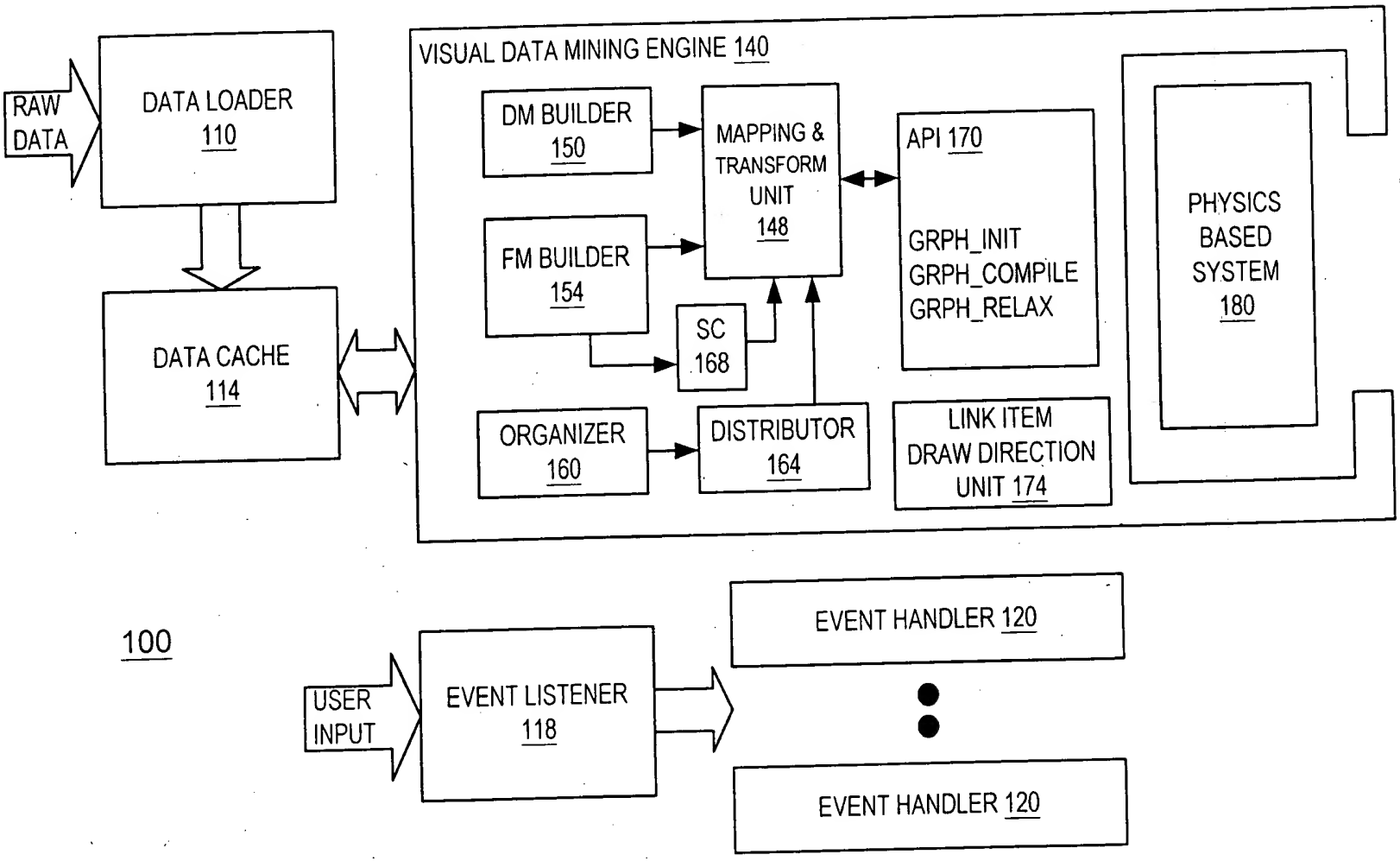

FIG. 4

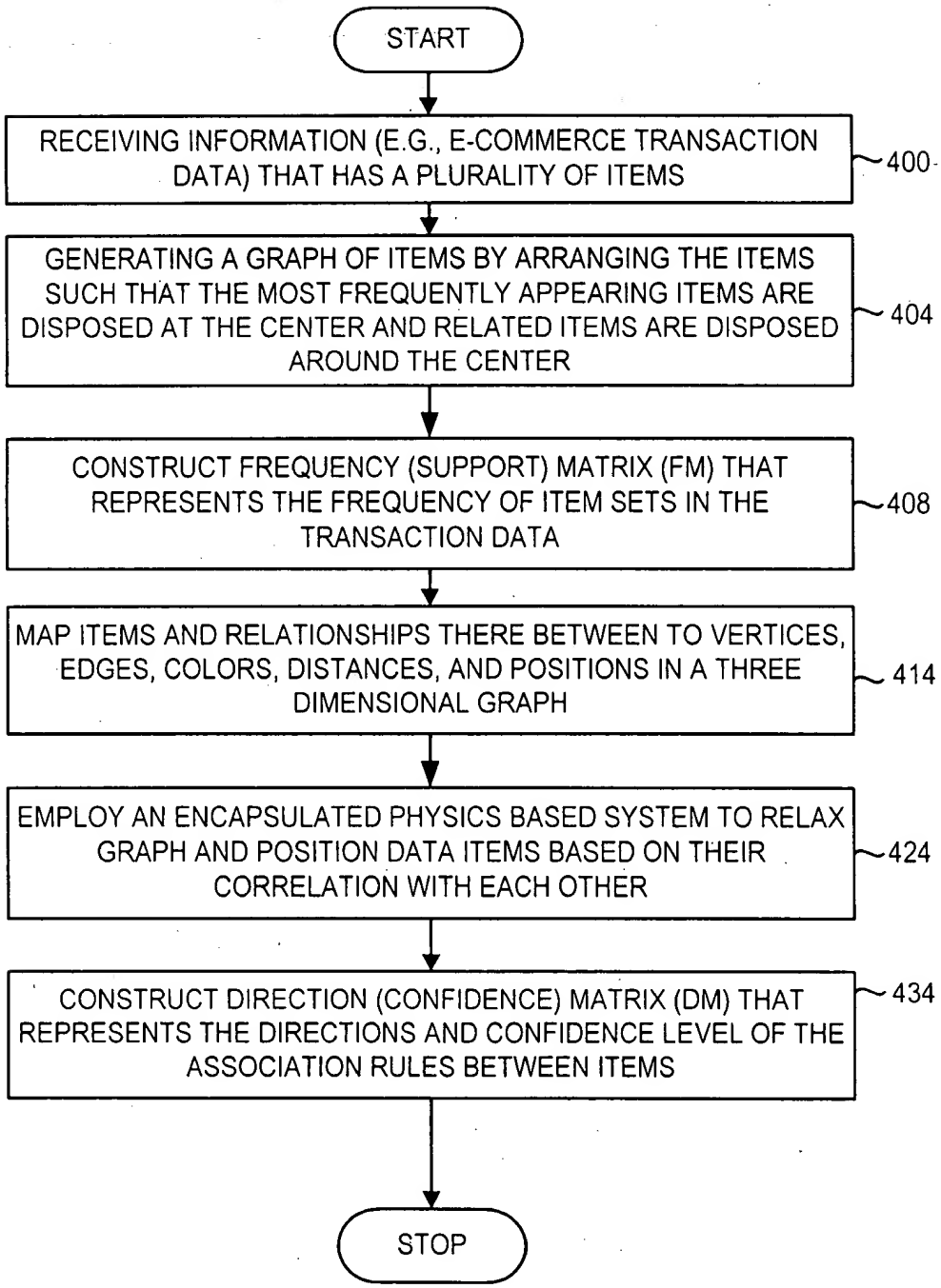
START
RECEIVING INFORMATION (E.G., E-COMMERCE TRANSACTION DATA) THAT HAS A PLURALITY OF ITEMS
400
GENERATING A GRAPH OF ITEMS BY ARRANGING THE ITEMS SUCH THAT THE MOST FREQUENTLY APPEARING ITEMS ARE DISPOSED AT THE CENTER AND RELATED ITEMS ARE DISPOSED AROUND THE CENTER
404
CONSTRUCT FREQUENCY (SUPPORT) MATRIX (FM) THAT REPRESENTS THE FREQUENCY OF ITEM SETS IN THE TRANSACTION DATA
408
MAP ITEMS AND RELATIONSHIPS THERE BETWEEN TO VERTICES, EDGES, COLORS, DISTANCES, AND POSITIONS IN A THREE DIMENSIONAL GRAPH
414
EMPLOY AN ENCAPSULATED PHYSICS BASED SYSTEM TO RELAX GRAPH AND POSITION DATA ITEMS BASED ON THEIR CORRELATION WITH EACH OTHER
424
CONSTRUCT DIRECTION (CONFIDENCE) MATRIX (DM) THAT REPRESENTS THE DIRECTIONS AND CONFIDENCE LEVEL OF THE ASSOCIATION RULES BETWEEN ITEMS
434
STOP

FIG. 5

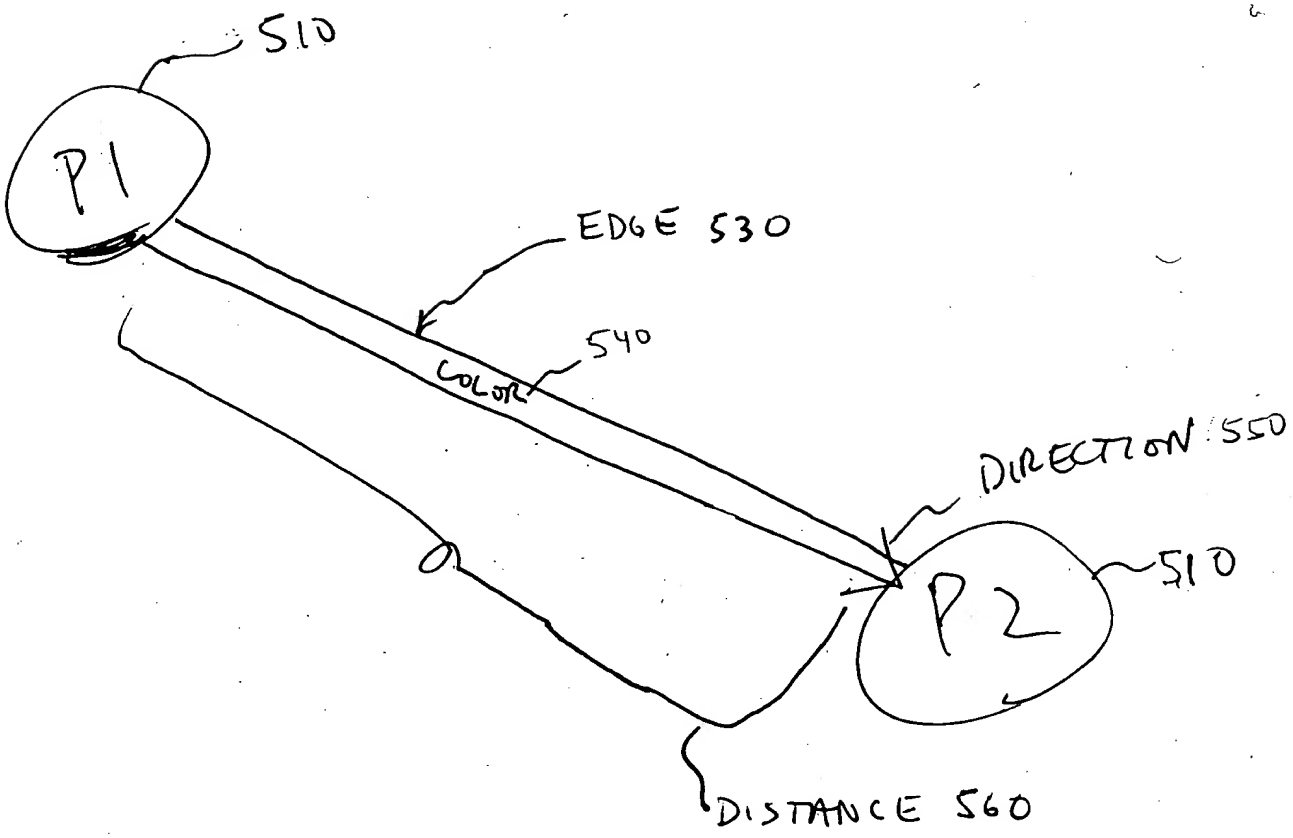

FIG. 6